Patent Claims

1. Seal arrangement for a gas turbine, in particular for an aircraft engine compressor, for sealing a gap (19) between radially internally located ends (18) of guide vanes (16) of a guide vane ring (15) and a rotor (12), in which case the rotor (12) has at least two seal projections (25, 26) positioned at an axial distance relative to each other in circumferential direction of the rotor (12), said seal projections (25, 26) effecting a seal of the gap (19) in combination with the intake linings (27, 28) associated with the radially internally located ends (18) of the guide vanes (16), **characterized in that**,

   a) the seal projections (25, 26) are inclined or tilted in axial direction toward the side of a higher pressure,

   b) in a space (29) limited by at least one of the minimum of two seal projections (25, 26) and the corresponding intake linings (27, 28), at least one recirculation structure (30) is provided, whereby the recirculation structure, or each recirculation structure (30), is oriented toward the side of the higher pressure.

2. Seal arrangement as in Claim 1, **characterized in that** the recirculation structure, or each of the recirculation structures (30), is integrated in a radially internally located platform of the guide vanes (16) of the guide vane ring (15).

3. Seal arrangement as in Claim 1 or 2, **characterized in that** the seal projections (25, 26) are configured as seal fins.

4. Seal arrangement as in one of the Claims 1 through 3, **characterized in that** the intake linings (27, 28) are configured as honeycomb structures.

5. Seal arrangement as in Claim 4, **characterized in that** the honeycombs of the honeycomb structures are configured such that they are open in the direction toward the seal projections (25, 26).

6. Seal arrangement as in one or more of the Claims 1 through 5, **characterized in that** the seal projections (25, 26) communicating with a guide vane ring, and the corresponding intake linings (27, 28) of the guide vane ring (15) have different radii, whereby the outer radii of the seal projections (25, 26), as well as the inner radii of the intake linings (27, 28), increase or become greater in the direction toward the side of the higher pressure.

7. Seal arrangement as in one of more of the Claims 1 through 6, **characterized in that** the guide vanes (16) arranged inside the main flow channel (13) in axial direction of the main flow channel (13) form serially arranged guide vain rings (15), whereby respectively on rotor blade ring (20) is arranged between each two adjacent guide vane rings (15), and whereby, in the region of each guide vane ring (15), a gap (19) between the guide vanes (16) and a rotor (12) is sealed by at least two seal projections (25, 26) which extend in circumferential direction of the rotor (12) and are positioned at an axial distance with respect to each other, said seal projections (25, 26) communicating with the intake linings (27, 28) associated with the radially internal ends (18) of the guide vanes (16).

8. Seal arrangement as in Claim 7, **characterized in that**, in the region of each guide vane ring (15), the seal projections (25, 26) are inclined or tilted in axial direction toward a side of higher pressure.

9. Seal arrangement as in Claim 7 or 8, **characterized in that**, in the region of each guide vane ring (15), at least one recirculation structure (30) is arranged in the space (29) limited by the minimum of two seal projections (25, 26) and the corresponding intake linings (27, 28), said recirculation structure (30) being oriented toward the side of the higher pressure.

10. Turbocompressor in axial construction and/or diagonal construction and/or radial construction, comprising a seal arrangement as in one of the Claims 1 through 9.

11. Aircraft engine comprising a turbocompressor as in Claim 10.

12. Stationary gas turbine comprising a turbocompressor as in Claim 10.